WHAT IS CLAIMED IS:

1. An image sensing apparatus having a distance measuring unit, comprising:

an image sensing element to form an object image which enters via a photographing optical system;

a distance measuring unit to measure distances to a plurality of points within a photographing frame using an optical path different from an optical path of the photographing optical system;

a determination unit to determine a relationship between a distance measuring result of the distance measuring unit and a drive amount of the photographing optical system, on the basis of the distance measuring result upon measuring a distance to a first point of the plurality of points by the distance measuring unit and a change in contrast of the object image formed at a position corresponding to the first point on the image sensing element when a focal point position of the photographing optical system has changed; and

a control unit to control the focal point position of the photographing optical system, on the basis of a distance measuring result of the distance measuring unit at a second point of the plurality of points, which is different from the first point and the relationship determined by the determination unit.

2. The image sensing apparatus according to claim 1, wherein the distance measuring unit comprises:

a distance calculation unit to calculate distances to objects present at the plurality of points by detecting image signals of the objects present at the plurality of points; and

a setting unit to set a highest-contrast point of the plurality of points as the first point, and to set a point corresponding to the nearest distance to the object calculated by the distance calculation unit as the second point.

3. The image sensing apparatus according to claim 1, wherein the distance measuring unit comprises a principal object detection unit to detect a location of a principal object from the plurality of points, and

the determination unit comprises a setting unit to set a point where the principal object is present as the second point.

4. The image sensing apparatus according to claim 3, wherein the principal object detection unit detects a point, at which the distance measuring result indicates a nearest distance, of the plurality of points as the point where the principal object is present.

5. The image sensing apparatus according to claim 1, wherein the distance measuring unit measures distances to objects present at the plurality of points by a passive or active method.

6. The image sensing apparatus according to

claim 1, wherein the distance measuring unit comprises a principal object detection unit to detect a principal object on the basis of the distance measuring result, and

the determination unit comprises a setting unit to set, as the first point, a point corresponding to a distance near a current focal point position of a photographing lens of the distance measuring results at the plurality of points, and to set a point where the principal object is present as the second point.

7. An image sensing apparatus having a distance measuring unit, comprising:

an image sensing element to form an object image which enters via a photographing optical system;

a distance measuring unit to measure distances to a plurality of points within a photographing frame using an optical path different from an optical path of the photographing optical system;

a first selection unit to select a point where a principal object is present as a first point on the basis of distance measuring results of the distance measuring unit;

a second selection unit to select, as a second point, a point which is nearer a position of the photographing optical system before control starts than the first point; and

a control unit to control a focal point position

of the photographing optical system, in accordance with contrast information in a region corresponding to the second point, a distance measuring result of the distance measuring unit at the first point, and a distance measuring result of the distance measuring unit at the second point.

8. An image sensing apparatus having a distance measuring unit, comprising:

an image sensing element to form an object image which enters via a photographing optical system;

a light projection unit to project light toward the object;

a distance measuring unit to execute a first distance measuring process that measures a distance to the object using an optical path different from an optical path of the photographing optical system without projecting light from the light projection unit to the object, and a second distance measuring process that measures a distance to the object while projecting light from the light projection unit to the object;

a determination unit to displace a focal point position of the photographing optical system on the basis of the first distance measuring result prior to the second distance measuring process, to detect a change in contrast of the object image formed on the image sensing element at that time, and to determine a relationship between a distance measuring result of

the distance measuring unit and a drive amount of the photographing optical system on the basis of the first distance measuring result and the change in contrast; and

a control unit to control a focal point position of the photographing optical system on the basis of the second distance measuring result and the relationship determined by the determination unit.

9. An image sensing apparatus having a distance measuring unit, comprising:

an image sensing element to convert an object image obtained via a photographing lens into an electrical signal;

a contrast detection unit to detect a contrast of object on the basis of an output from the image sensing element;

an object distance detection unit which is provided in an optical path different from an optical path of the photographing lens and is to detect a distance to the object;

a first focal point position determination unit to control a position of the photographing lens on the basis of the distance to the object detected by the object distance detection unit, to make the contrast detection unit detect the contrast of the object at the controlled photographing lens position, to make the contrast detection unit then detect contrasts of the

object at least at four photographing lens positions, and to determine a first focal point position of the photographing lens on the basis of a change in detected contrast of the object; and

a second focal point position determination unit to determine a second focal point position of the photographing lens on the basis of the distance to the object, the first focal point position, and a new distance to the object detected by the object distance detection unit, after the first focal point position determination unit determines the first focal point position.

10. The image sensing apparatus according to claim 9, wherein the second focal point position determination unit comprises a checking unit to check a moving direction of the photographing lens, and

the second focal point position determination unit determines a focal point position by correcting any backlash in accordance with a checking result of the checking unit.

11. The image sensing apparatus according to claim 9, wherein the photographing lens is a zoom lens, and

the second focal point position determination unit determines a focal point position in consideration of a change result of a focal length by zooming of the zoom lens.

12. An image sensing apparatus having a distance measuring unit, comprising:

a distance measuring unit to obtain an object distance using an optical system different from a photographing lens;

a focal point position detection unit to obtain a focal point position of an object on the basis of contrast information obtained via the photographing lens;

a release switch operated at a photographing start timing of the object; and

an arithmetic control unit to calculate a focal point position of the photographing lens, on the basis of the object distance obtained by operating the distance measuring unit before operation of the release switch, the focal point position obtained by operating the focal point position detection unit before operation of the release switch, and the object distance obtained by operating the distance measuring unit after operation of the release switch.

13. An image sensing apparatus having a distance measuring unit, comprising:

an image sensing unit to convert an object image which enters via a photographing lens into an electrical signal;

a contrast detection unit to detect contrast information from an output of the image sensing unit;

a first focal point control unit to execute first focal point position adjustment of the photographing lens on the basis of the contrast information detected by the contrast detection unit;

an object distance detection unit to detect an object distance using an optical path different from an optical path of the photographing lens; and

a second focal point control unit to execute second focal point position adjustment of the photographing lens on the basis of the object distance detected by the object distance detection unit,

wherein the image sensing apparatus executes, in an initial focal point adjustment operation, the second focal point position adjustment using the second focal point control unit and then the first focal point position adjustment using the first focal point control unit, and executes, in a subsequent focal point adjustment operation, focal point position adjustment by correcting a focal point position controlled by the second focal point control unit on the basis of a relationship between focal point positions of the photographing lens, which are obtained by the first focal point position adjustment and the second focal point position adjustment in the initial focal point adjustment operation.

14. An image sensing apparatus having a distance measuring unit, comprising:

an image sensing unit to convert an object image which enters via a photographing lens into an electrical signal;

a contrast detection unit to detect contrast information from an output of the image sensing unit;

a first focal point control unit to execute focal point position adjustment of the photographing lens on the basis of the contrast information detected by the contrast detection unit;

an object distance detection unit to detect an object distance using an optical path different from an optical path of the photographing lens; and

a second focal point control unit to execute focal point position adjustment of the photographing lens on the basis of the object distance detected by the object distance detection unit,

wherein the image sensing apparatus executes focal point adjustment using both the first and second focal point control units in an initial focal point adjustment operation, and executes focal point position adjustment using the second focal point control unit on the basis of a relationship between focal points determined by the first and second focal point control units in a subsequent focal point adjustment operation.

15. An image sensing apparatus having a distance measuring unit, comprising:

an image sensing unit to convert an object

image which enters via a photographing lens into an electrical signal;

a contrast detection unit to detect contrast information from an output of the image sensing unit; and

an object distance detection unit to detect an object distance using an optical path different from an optical path of the photographing lens,

wherein the image sensing apparatus initially executes a first focal point adjustment operation of the photographing lens using outputs from the object distance detection unit and the contrast detection unit, and then executes a second focal point adjustment operation of the photographing lens using only the output from the object distance detection unit when the output from the object distance detection unit or the contrast detection unit meets a predetermined condition.

16. An image sensing apparatus having a distance measuring unit, comprising:

an image sensing element;

a photographing optical system to form an object image on an imaging surface of the image sensing element;

a drive unit to change a focal point position of the photographing optical system;

an image processing unit to generate image data

from an output signal of the image sensing element;

a distance measuring optical system having an optical path different from an optical path of the photographing optical system;

a distance measuring unit to measure a distance at a specific point of an object field via the distance measuring optical system; and

a CPU connected to the drive unit, the image processing unit, and the distance measuring unit, the CPU determining a position error of the photographing optical system with respect to a distance measuring result of the distance measuring unit, on the basis of the distance measuring result to the specific point obtained by the distance measuring unit and a change in contrast of the image data obtained upon changing the focal point position of the photographing optical system by controlling the drive unit.

17. The image sensing apparatus according to claim 16, wherein the distance measuring unit measures the distance by detecting an image signal of an object present at the specific point.

18. The image sensing apparatus according to claim 16, wherein the distance measuring unit has a plurality of specific points, and

the CPU determines the position error at a highest-contrast point of the plurality of specific points.

19. A method of controlling an image sensing apparatus, which has a distance measuring unit to measure an object distance via a distance measuring optical system different from an optical path of a photographing optical system, comprising:

measuring an object distance at a specific point of an object field via the distance measuring optical system;

searching for a highest-contrast lens position while displacing the photographing optical system; and

calculating position error information of the photographing optical system on the basis of the measured object distance and the searched lens position.

20. The method according to claim 19, further comprising: determining a focal point adjustment position of the photographing optical system on the basis of a new object distance measured by the distance measuring unit, and the position error information.